My experience leads me to believe that every case of this afflictive accident is completely remediable.

I decidedly prefer the metallic suture in the treatment of this infirmity. With it we are enabled to close and confine the denuded margin of the fissure with more ease, and greater certainty than with the silken, or thread suture. And should the least gaping of the wound take place, a few twists of the free ends of the wires will enable us to close it up again. The leaden suture, too, does not cut out as soon as silk or thread.

Art. V.—*Report of Cases treated in Cincinnati Commercial Hospital.*

By John P. Harrison, M. D., &c.

The main design of the following statement of cases is to elucidate diagnosis. The treatment presents no novelty to the well informed practitioner, and therefore will not be dwelt upon with any minuteness of detail. The symptoms during life, and the appearances after death, shall demand our principal consideration.

Case I.—*Cyanosis.*—John Ritter, aged 20 years, by trade a baker, had been subject for the last five years to some degree of blueness of the general surface of the body. He says that this appearance of his skin came on after great efforts in carrying wood. Can give no distinct account of his health during childhood.

January 15th, 1844. Upon admission into the hospital presents the following symptoms; difficult respiration; much lividity over many parts of the surface, especially the ears, the lips, and the fingers; great protuberance of the eyeballs; slight œdema of the eyelids; tongue very livid; the external jugular, and smaller veins of the neck much enlarged and varicose; pulse irregular and indistinct; and general temperature of the body, especially of the extremities, low. A slight movement of the patient causes increased lividity of the countenance. The bowels of the patient were in a regular state.

Diagnosis.—Patent foramen ovale.

Prognosis.—Death.

The patient lived, after admission, till the 18th of the month, the blueness augmenting to the last.

Appearances on the autopsy.—The heart was much enlarged in size, the right ventricle was hypertrophied to a great extent, and its cavity much dilated. The right auricle was expanded into a bag sufficient to contain half a pint of fluid. The foramen ovale was imperfectly closed, there being several openings through it large enough, each of them, to admit a small quill. The tricuspid valve did not close up the auriculo-ventricular space. The right lung was healthy; the left lung exhibited a singular appearance. Partial emphysema was obvious in different portions of the interlobular tissue, but in a most remarkable degree there were exhibited three large collections of air, each of the size of the urinary bladder when

containing about a pint of fluid. These collections were obviously produced by the air escaping from the cells of the pulmonary structure, and collecting within the pleura pulmonalis.

Reflections.—It is now a well-established truth, that cyanosis is not an invariable accompaniment of an unclosed state of the foramen ovale. Its frequent occurrence upon such a condition, however, warrants the inference, long since deduced, that this unnatural patency is to be suspected whenever we witness such a case as Ritter's. The enlarged dimensions of the right chamber of the heart was, perhaps, caused by the deficient valvular action of that side. What direct agency the large accumulation of air in the left lung had in the production of the cyanosis there may be room to doubt. But we think it clear that the impeded respiration and the great breathlessness of the patient were in great part induced by this escape and collection of air, out of the true cellular structure of the lung.

Case II.—*Heart disease.*—George Fusy, aged 29 years, a baker by trade, was admitted April 6th, 1844, for a slight dropsical swelling of the lower extremities, and of the abdomen; for which he had taken, by the direction of a physician in the city, the usual anti-hydropic remedies.

On admission the patient is thus affected: he is of a pale aspect; has, upon slight exertion, embarrassed respiration; is subject to cold, clammy perspiration; his prolabia are livid; has palpitation of the heart; the urine tested by nitric acid evinces considerable amount of albumen; pulse is small and hard; no perceptible intermission, though a slight irregularity in its rhythm.

The patient was put upon cathartics, alternated with diuretics, but slight amendment followed. In the night of the 14th, eight days from the date of admission, he grew worse. He could not lie down; there is great dyspnœa, with palpitation of the heart. A distinct rasping sound was now heard by the use of the stethoscope. He was cupped to the extent of ten ounces, over the region of the heart, and a large blister was put on after the local depletion. Calomel, opium, and tart. ant. were given persistently for several days, when an obvious improvement followed. The mouth was slightly touched by the calomel, and the patient thought himself well enough, in ten days after the mercurial influence had subsided, to leave the house.

December 24th, 1845. The patient was re-admitted; he is now affected with ascites to a greater extent than on his first admission; great difficulty in breathing; prolabia of a purple hue; pulse very small; action of the heart great; bellows sound, with dull friction sound of the heart.

January 16th, 1846. The patient has been taking since the 24th of last month, various active diuretics, with an occasional cathartic. He has not improved in the cardiac symptoms, although there is a marked diminution of the anasarca and ascites. To-day there exists a palpable absence of respiratory murmur at the lower part of each side of the thorax.

26th. Symptoms of heart affection worse. Heart occupies a larger space; there is cough with great dyspnœa. Respiration on the right side of the chest is perceptible only so high as the point of the scapula.

February 4th. The patient died.

Diagnosis.—During the latter part of this patient's illness, he was attended by another of the hospital physicians. I saw the patient occasion-

ally, however, and determining from his previous attack, and the symptoms as detailed in the records of the hospital, the following diagnosis was arrived at. Hypertrophy, with pericarditis, giving origin to dropsical effusions in the abdomen, cellular tissue, and the chest.

Cadaveric inspection, thirty-six hours after death. Three quarts of serum in the thorax, the largest portion of it in the right side; the right lung rendered useless by the compression of the fluid. The pleura of both sides coated with lymph; pericardium thickened and filled with serous fluid. Heart enlarged; its weight is two lb. three oz. avoirdupois; the wall of the left ventricle three-quarters of an inch thick, and both cavities of the heart much dilated. The aortic valves imperfect, thickened and irregular. The surface of the heart is covered with lymph, which has a honey-comb appearance. Liver much enlarged, and substance easily broken up.

Reflections.—This case was, at the very commencement of the dropsical symptoms, heart disease. The patient stated, just after his entrance into the hospital, 6th of April, 1844, that he had some months previously been affected with pains in the joints. The pericarditis preceded the enlargement of the heart, which, perhaps, was subsequent to the deficiency of the semilunar valves at the mouth of the aorta. The symptoms of cardiac disease seemed to recede under the constitutional action of mercury, and the man was sufficiently restored to return to his work. But the necessary exposure, incident to his occupation, brought on a renewal of the pericarditis and endocarditis. In the subsequent treatment of the case, that is, upon his re-admission, the alterant or constitutional interposition of mercury was not brought to bear with sufficient boldness upon the case. The organic lesions were, perhaps. still controllable by the interference of this great agent. However, on this point we should not too confidently decide, as the medical gentleman who conducted the treatment was in every way competent to arrive at the best therapeutic results which the exigency of such a case required.

Case III.—*Heart disease.*—W. Dellabunt, aged 64 years, a labourer, has been affected for five weeks with general dropsy.

March 18th, 1843. Upon admission, the following symptoms were present: anasarca of the lower extremities, and ascites; difficult respiration; dulness of the lower portion of both sides of the thorax, especially the left; respiration difficult, and the respiratory murmur absent in the portions of the chest which yield a dull sound on percussion; action of heart irregular; but nothing determinate ascertained from its sounds, or impulses.

The patient was freely purged with the compound powder of jalap, then put on the following combination. ℞.—Bitart. potassæ ʒvj; sulph. potassæ ʒij; pulv. scillæ ʒj; tart. antimon. gr. jss. M. A teaspoonful was given four times a day. Under the use, for several days, of the above prescription, the dropsical intumescence rapidly abated.

24th. The patient had slight delirium, but which subsided in a few days.

April 7th. The dropsy has entirely disappeared. The action of the heart is now more distinct, but in a few days became again indistinct and obscure. The heart occupies a larger space in the region of the thorax.

14th. The patient is again affected with dropsy of the chest, abdomen, and lower extremities.

May and *June.* During these months he was gradually growing worse. Action of the heart still obscure; respiration much oppressed; cough troublesome, occasionally; pulse intermittent and weak, scarcely perceptible at times.

July. During this month there is increase of dropsical effusion.

August 1*st.* He died.

Sectio cadaveris.—Thorax; a pint of serum in the right side, and a pint and a half in the left. Heart enlarged; four ounces of serum in the pericardium; hypertrophy of the left ventricle; aortic valve ossified to a large extent; slight ossific deposit on the mitral valve.

Abdomen.—The viscera healthy. The left kidney has a calculus, the size of a pea, in its pelvis.

Reflections.—Before I took charge of the case the patient had been, during March and April, under the care of the attending physician of the hospital, whose time of service terminated the first of May.

Considering the case hopeless, I did not make any alteration in the treatment. The diagnosis was obscure; that he had enlarged heart, accompanied by some valvular deficiency, was evident, but such was the obscurity in the sounds and impulses of the heart, created by the pericardial effusion, that no positive diagnosis was established.

Case IV.—*Fractured spine.*—William Clark, aged 33 years, a boatman, was brought into the house on Jan. 25th, 1843. He is addicted to the excessive use of ardent spirits, and whilst in the state of deep intoxication, he fell into a saw pit, and was there found cold, senseless, and nearly dead. There is little pulse, the extremities are stiff, and he is incapable of giving any answer to questions put to him. There is no exterior contusion. The spine is apparently not injured, or at least no injury can be detected by external examination. The urine has distended the bladder, and the bronchi are filled with mucus; the expectoration is difficult.

Cold applications to the head, diffusible stimuli, and external warmth to the body, are the measures employed. The catheter has to be employed to rid the bladder of the urine accumulated in it. The stools are involuntary.

28*th* There is a slight improvement in his general aspect and state. There is perfect consciousness; free action of the bowels has been procured by cathartics; the pulse is more perceptible, but still feeble and frequent. The breathing is exclusively diaphragmatic; not the least motion of the abdominal or intercostal muscles seen. There is entire paralysis of motion and sensation from about the middle of the dorsal vertebræ around the body; the lower half of the trunk, and the inferior extremities are insensible and motionless.

31*st.* Some threatening of delirium tremens; stimulants were given, and he grew slightly better. Bed sores about his hips have made their appearance.

February 7th. The patient died, after a deep and extensive sloughing had occurred in the soft parts covering the sacrum and hips. The accumulation of mucus in the bronchial tubes increased, and his countenance for several days assumed a livid aspect. The delirium three days before death became worse; the paralysis remaining as above stated.

The post-mortem examination revealed the following appearances. The

sixth dorsal vertebra, through its body, was fractured; there was but little displacement of the fractured parts. The spinal cord was apparently uninjured; no perceptible lesion in its membranes, or substance. The kidneys were softened and ulcerated. The softening was general, and the ulceration was most obvious about the calices. The urinary bladder was thickened, and the internal coat abraded of its mucous tissue; purulent matter adhering to it.

Reflections.—This case is one of singular interest from several considerations. First, the fractured dorsal vertebra was not detected till after death, though the symptoms pointed most significantly to such a lesion. The paraplegia, the character of the respiration, and the tendency to gangrene, so early exhibited in consequence of the decubitus, were pointedly evincive of such a grave lesion. Second, the complication of the more profound pathological state of the spinal marrow with a strong proclivity towards temulent mania, arising from the previous and long-indulged habit of spirituous potation. And, lastly, the lesions of the kidneys, and of the urinary bladder, no doubt consecutive and dependent upon the loss of innervation occasioned by the state of the spinal column. Whether this loss of innervation was the result of simple concussion, or of disintegration of the nervous substance, or of absolute pressure, cannot be very readily decided. Concussion had something to do with the paralysis, but we cannot attribute the serious aspect which the case continued to exhibit, to such a circumstance alone. The molecular integrity of the cord was evidently most seriously deranged; this may have partaken essentially of the nature of a contusion, destructive to its vitality, without any very signal proofs of structural alteration.

Several years ago we attended a man, in consultation with a physician, on the opposite side of the Ohio river, who lived three weeks after being thrown, in a personal rencounter, upon the curbstone. He was taken up entirely paralytic, from the neck down, arms, trunk and lower extremities all deprived of sensation and motion. The usual phenomena, witnessed in such cases, were present; there was a slight return of sensation and motion a few days before death. Upon a careful examination of the vertebral column, we found a dislocation of the fifth and sixth vertebræ of the neck. There was no very obvious lesion of structure in the spinal cord, a slight softening only could be appreciated, but no effusion of lymph, or blood, nor any appearance of suppuration. Neither upon examination during life, nor upon particular inspection after death, could we detect any curvature, or displacement in the cervical portion of the spinal column. Soon after the occurrence which induced the paralysis noticed, there was observed some contusion at the lower part of the neck, and the patient, whenever the contused place was handled, complained most bitterly of pain, felt at the upper portion of the contusion, but he experienced no pain when the lower part of the injured soft parts was pressed upon, or otherwise freely touched.